

## APPENDIX 2

### SOIL CHEMISTRY

CHEMICAL RESIDUES from the canning process should be useful indicators of activity areas within a cannery site. Metals, fluxes, and food wastes should leave their signatures in the chemistry of the soils overlying the site. Since only a small part of the site was being studied, it was not possible to conduct a complete chemical survey of the cannery as it existed during the fifteen years of its active life, 1869-1884. Nonetheless, six soil samples were taken and analysed by the University of Delaware soils laboratory. Their locations are shown on a site map, figure 28, page 126.

Locations of the chemical samples were chosen to provide a diversity of conditions. Results proved to be equally diverse. Calcium, which could not be graphed on the pie charts because of its overwhelming predominance, varied widely. Zinc, as expected, was most concentrated near the can-making waste, as was phosphorous.

Such diversity certainly points to the future usefulness of chemical mapping as a technique for isolating areas in future cannery or related industrial sites. For purposes of the present study, it remains a path not yet chosen.

TABLE 8

SOIL SAMPLES FROM SIX SELECTED LOCI AT THE LEBANON CANNERY (FIGURE 28)  
(POUNDS PER ACRE)

	SAMPLE 1	SAMPLE 2	SAMPLE 3	SAMPLE 4	SAMPLE 5	SAMPLE 6
PHOSPHOROUS.	35 .....	5 .....	241 .....	51 .....	1 .....	6
POTASSIUM.....	95 .....	95 .....	297 .....	92 .....	231 .....	131
MAGNESIUM....	140 .....	58 .....	322 .....	106 .....	518 .....	71
MANGANESE ...	24.1 .....	23.9 .....	31.8 .....	50.1 .....	28 .....	18.1
ZINC .....	8.8 .....	5 .....	45 .....	7.7 .....	13.1 .....	3.6
CALCIUM .....	1193 .....	409 .....	3560 .....	819 .....	11214 .....	623

Figure 28

# Site plan, with locations of chemical tests

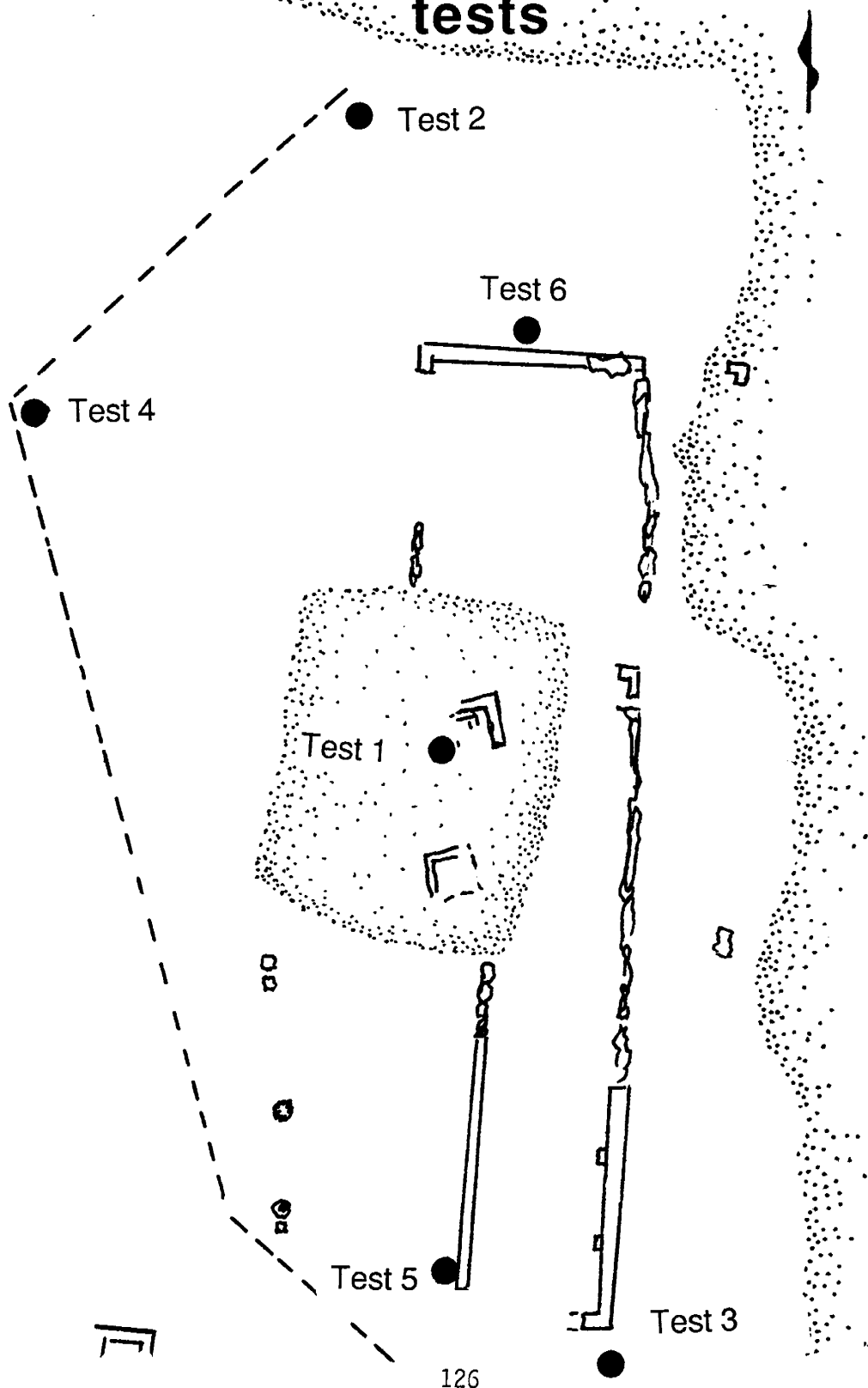


Figure 29  
Pie charts of chemical test results  
from Lebanon cannery site

